

### DEVELOPMENT & RESOURCE MANAGEMENT DEPARTMENT BUILDING & SAFETY SERVICES

### **MULTI-FAMILY / CONDOMINIUM (3 OR MORE UNITS)**

## RE-ROOF PERMIT APPLICATION 2013 CALIFORNIA BUILDING & ENERGY CODES

|                                | FACSIMILE TRANS  | SMITTAL SHEET           |              |  |
|--------------------------------|--|-------------------------|--------------|--|
| Date:                          |  | From:                   |              |  |
| To:                            |  | Phone Number:           |              |  |
| To Fax Number: (559) 498-435   | 7  | Fax Number:             |              |  |
| Number of Pages Transmitted _  | including this page  |                         |              |  |
|                                |  | PERM                    | MIT #:       |  |
| PROJECT ADDRESS:               |  |                         |              |  |
| OWNER:                         |  |                         |              |  |
| CONTRACTOR INFORMAT            | ION:   |                         |              |  |
|                                |  | Company Name            |              |  |
|                                | Address  |                         | Phone Number |  |
| <b>BUILDING USE:</b> $\Box$ Ap | artments (three or more units per b  | uilding)   □ Condo      | ominiums     |  |
| VALUATION – TOTAL COS          | T OF ROOFING MATERIAL A  | ND LABOR:               |              |  |
| PROPOSED ROOFING MAT           | ERIA:  |                         |              |  |
| ☐ Wood Shake/Shingles          | ☐ Asphalt Shingle/Composition  | ☐ Single Ply ☐ M        | Metal        |  |
| ☐ Built-Up/Torch Down/Rolled   | d □□ Heavy/Light Weight Tile   | ☐ Foam/Liquid Coating   | □ Other      |  |
| Installed Weight of Tile:      | Roof Slope:  | Roofing Area:           |              |  |
|                                | oof may remain. Cool roof material l required if greater than 50% of the ted (see page 2 of this form) | * '                     |              |  |
|                                | DRMATION AND APPROVALS on site for inspector's verification  |                         |              |  |
|                                | I(   | CC Evaluation Report No |              |  |
| Manufacturer's Name            |  |                         |              |  |
|                                | Solar Reflectance:   | Thermal Emittance:      | SRI:         |  |

### COOL ROOF PRODUCTS SHALL MEET THE REQUIREMENTS AS NOTED BELOW:

### **CALIFORNIA ENERGY CODE**

# <u>SECTION 150.2 ROOF REPLACEMENTS</u> - <u>LOW-RISE RESIDENTIAL</u> <u>MULTI-FAMILY/CONDOMINIUM (3 OR MORE UNITS)</u>

| STRUCTURE   | LOW-<br>SLOPE<br>< 2/12 | STEEP<br>SLOPE | SOLAR<br>REFLECTANCE<br>(MINIMUM) | THERMAL<br>EMITTANCE<br>(MINIMUM) | SRI | NOTES | EXCEPTIONS   |
|-------------|-------------------------|----------------|-----------------------------------|-----------------------------------|-----|-------|--------------|
| LOW-RISE    | Х                       |                | 0.63                              | 0.75                              | 75  | 1     | f            |
| RESIDENTIAL |                         |                |                                   |                                   |     |       |              |
| LOW-RISE    |                         | Χ              | 0.20                              | 0.75                              | 16  | 2     | a-b-c-d-e-f- |
| RESIDENTIAL |                         |                |                                   |                                   |     |       | g            |

#### **EXCEPTIONS:** (Circle which exception you are requesting)

- a. Air-space of 1.0 inch is provided between the top of the roof deck to the bottom of the roofing product. (Note: Air space not allowed over existing wood shake or wood shingle roofs); **or**
- b. The installed roofing product has a profile ratio of rise to width of 1 to 50 for 50percent or greater of the width of the roofing product; **or**
- c. Existing ducts in the attic are insulated and sealed according to Section 150.1(c)9.(Note: HERS rating required with CF3R Form); or
- d. Building has at least R-38 ceiling insulation. (Note: Insulation certification required); or
- e. Building has a radiant barrier in the attic meeting the requirements of Section 150.1(c) 2.; or
- f. Building has no ducts in the attic. or
- g. Minimum R-4 insulation installed above the roof deck. (Note: If foam plastic insulation is used, the roof sheathing must be T&G or blocked )

### NOTES:

1. The aged solar reflectance can be met by using insulation at the roof deck specified in Table 150.2-A.

### TABLE 150.2-A AGED SOLAR REFLECTANCE INSULATION TRADE OFF TABLE

| AGED SOLAR<br>REFLECTANCE | ROOF DECK INSULATION<br>R-VALUE | AGED SOLAR<br>REFLECTANCE | ROOF DECK INSULATION<br>R-VALUE |
|---------------------------|---------------------------------|---------------------------|---------------------------------|
| 0.62-0.60                 | 2                               | 0.44-0.40                 | 12                              |
| 0.59-0.55                 | 4                               | 0.39-0.35                 | 16                              |
| 0.54-0.50                 | 6                               | 0.34-0.30                 | 20                              |
| 0.49-0.45                 | 8                               | 0.29-0.25                 | 24                              |

2. The attic ventilation is required to meet current California Building Code requirements when roofing with composition shingles due to the manufacturer's warranty requirements. Ventilation area must equal one square foot for each 300 ft² of attic floor area. Vents must be installed with 50% high and 50% low. Low vents must be distributed equally around the structure. The attached Attic Ventilation Worksheet is required to be completed. For large structures or structures with complex roof and attic areas a roof ventilation plan shall be provided.

### TYPICAL VALUES FOR ATTIC VENTS

Soffit Vents  $3.5 \times 14.5 = 30 \text{ sq ins}$   $3.5 \times 22.5 = 50 \text{ sq ins}$  $5.5 \times 22.5 = 80 \text{ sq ins}$  Small Dormer Vents 50 sq ins Large Dormer Vents 100 sq ins Ridge Vents
Per ICC Evaluation Report



Total Ventilation provided:

| Project Address: |  |
|------------------|--|
| •                |  |

| ATTIC VENTILATION WO   | <u>ORKSHEET</u>             |   |  |                                      |
|--|-----------------------------|---|--|--------------------------------------|
| STEP 1<br>Determine Total Square Feet                          | t of Attic Floor Sp         | oace ("Enclosed                             | l" Attic Space)                                    |                                      |
| Length of Attic x W (Repeat process for all attic areas        |                             | = (a <sup>1</sup> )                         | Square feet of attic                               | space                                |
| Length of Attic x W (Repeat process for all attic areas        |                             | = (a <sup>2</sup> )                         | Square feet of attic s                             | space                                |
| Areas without Attic Space / Unen                               | closed / Vaulted ceil       | ing (b) =                                   | Square feet  |                                      |
| Net Ventable Attic Space (c) = _                               | Square I                    | Feet (a) - (b) = (c                         | )  |                                      |
| STEP 2<br>Calculate Ventilation Requir                         | ement                       |   |  |                                      |
| (c) ÷ 150 = (d)  | Square feet of              | of code required                            | ventilation <b>or</b>                              |                                      |
| (c) ÷ 300 = (d)  | Square feet of              | of code required                            | ventilation  |                                      |
| STEP 3<br>Convert Square Feet to Squa                          | are Inches                  |   |  |                                      |
| (d) X 144 = (e)  | TOTAL squ                   | are inches of coo                           | le required ventilation                            |                                      |
| STEP 4 Determine High & Low Vent                               | tilation Requirem           | ent   |  |                                      |
| (e) ÷2 (high & low v   | rentilation) = ( <b>f</b> ) | Square                                      | inches of code required ve                         | entilation (high & low)              |
| STEP 5 Determine Number of Existing                            | ng Vents and Pro            | posed New Ver                               | nts in order to meet Ven                           | tilation Requirement                 |
| Existing High Vents:   | Number of vents _           | @   | square inches =                                    | square inches                        |
| Existing High Vents:   |                             | @   | square inches =                                    | square inches                        |
| Proposed High Vents:   |                             |   | square inches =                                    | square inches<br>total square inches |
|  | i Otai                      | rigii ventilatio                            | on to be provided =                                | total square iliches                 |
| Existing Low Vents:  | Number of Vents _           | @   | square inches =                                    | square inches                        |
| Existing Low Vents:  | Number of Vents _           | @   | square inches =                                    | square inches                        |
| Proposed Low Vents:  |                             |   | square inches =                                    | square inches<br>total square inches |
|  | Total                       | LOW Ventilation                             | on to be provided =                                | total square inches                  |
| Example: (for 1/300 method)                                    | )                           |   |  |                                      |
| Step 1 Attic Area:   |                             |   | 200  sq ft  & (b) = 0                              |                                      |
| Step 2 Ventilation Calculation:                                |                             | 200 - (b) 0 = (c)<br>$200 \div 150 = (d) 4$ |  |                                      |
| Step 3 Convert to Sq Inches:                                   |                             | sq ft x 144 = 0                             |  |                                      |
| Step 4 High and Low Vent Area I Step 5:                        |                             | $76 \div 2 = (f) 288 \text{ so}$            |  |                                      |
| Provided Low Vents (intake):<br>Provided High Vents (exhaust): |                             |   | ch = 288 square inches<br>each = 288 square inches |                                      |

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= 576 square inches